GenCore version 5.1.4_p5_4578

OM protein - protein search, using sw model

Run on: May 11, 2003, 01:10:28 ; Search time 62 Seconds
(without alignments)
232.114 Million cell updates/sec

Title: US-09-914-324A-1
Perfect score: 616
Sequence: 1 MAAAMDVDTPSGTNSGAGKK.....KTRQVCPLDNREWEFQKYGH 108

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	616	100.0	108	21	AAB19160	Amino acid sequenc
2	616	100.0	108	21	AAB08813	A human cullin-int
3	616	100.0	108	21	AAG03890	Human secreted pro
4	616	100.0	108	22	AAB47599	ROC1. Unidentifie
5	534	86.7	108	22	ABB68080	Drosophila melanog
6	514.5	83.5	118	21	AAG23004	Arabidopsis thalia
7	511	83.0	109	21	AAG23005	Arabidopsis thalia
8	400.5	65.0	122	22	ABB66109	Drosophila melanog
9	385	62.5	121	21	AAB08814	A yeast cullin-int
10	323	52.4	57	21	AAB41007	Human ORFX ORF771
11	292	47.4	113	20	AAY06492	Human sensitive to
12	292	47.4	113	21	AAB43295	Human ORFX ORF3059
13	292	47.4	118	22	AAU15873	Human novel secret
14	292	47.4	131	22	AAU16332	Human novel secret
15	291	47.2	113	20	AAY06509	Human sensitive to
16	290.5	47.2	113	20	AAY06491	Mouse sensitive to
17	290.5	47.2	113	21	AAB19161	Amino acid sequenc
18	287	46.6	113	22	AAB47600	ROC2. Unidentifie
19	285	46.3	113	20	AAY06508	Human sensitive to
20	283	45.9	113	20	AAY06500	Human sensitive to
21	283	45.9	113	20	AAY06501	Human sensitive to
22	282	45.8	113	20	AAY06495	Human sensitive to
23	282	45.8	113	20	AAY06496	Human sensitive to
24	282	45.8	113	20	AAY06498	Human sensitive to
25	282	45.8	113	20	AAY06499	Human sensitive to
26	282	45.8	113	20	AAY06502	Human sensitive to
27	282	45.8	113	20	AAY06503	Human sensitive to
28	282	45.8	113	20	AAY06505	Human sensitive to
29	282	45.8	113	20	AAY06506	Human sensitive to
30	274	44.5	113	20	AAY06504	Human sensitive to
31	272	44.2	113	20	AAY06497	Human sensitive to
32	272	44.2	113	20	AAY06507	Human sensitive to
33	235	38.1	97	20	AAY06494	Human sensitive to
34	235	38.1	97	21	AAB43284	Human ORFX ORF3048
35	213	34.6	88	21	AAB58912	Breast and ovarian
36	213	34.6	88	22	ABB12308	Human HSPC214 homo
37	213	34.6	88	22	AAM79609	Human protein SEQ
38	213	34.6	91	23	ABP41805	Human ovarian anti
39	213	34.6	105	22	AAU16321	Human novel secret
40	210	34.1	124	22	AAU16331	Human novel secret
41	208	33.8	84	21	AAB25766	Human secreted pro
42	208	33.8	84	22	ABB50243	Human transcriptio
43	208	33.8	84	22	AAM78625	Human protein SEQ
44	208	33.8	84	22	AAB75352	Human secreted pro
45	202	32.8	84	22	AAB47598	APC11. Unidentifi

ALIGNMENTS

RESULT 1
AAB19160
ID AAB19160 standard; Protein; 108 AA.
XX
AC AAB19160;
XX
DT 19-FEB-2001 (first entry)
XX
DE Amino acid sequence of human ring finger protein ROC1.
XX
KW ROC1; ROC2; cullin; ring finger protein; APC11; APC complex; SCF pathway;
KW cullin dependent ubiquitin ligase; CDK inhibitor Sic1 degradation;
KW tumour.
XX
OS Homo sapiens.
XX
PN WO200058472-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US08592.
XX
PR 31-MAR-1999; 99US-0127261.
PR 22-NOV-1999; 99US-0166927.
XX
PA (UYNC-) UNIV NORTH CAROLINA.
XX
PI Xiong Y, Ohta T;
XX
DR WPI; 2000-647235/62.
DR N-PSDB; AAA96882.
XX
PT Novel nucleic acid encoding cullin regulating ring finger proteins,

PT termed as ROC proteins similar to anaphase-promoting complex 11, for
PT therapeutic and diagnostic use -
XX
PS Claim 9; Fig 2A; 83pp; English.
XX
CC The present sequence represents a human ROC1 ring finger protein. The
CC specification also describes human ROC2. ROC1 and ROC2 are similar
CC to APC11, a subunit of the APC complex. The proteins stimulate cullin
CC dependent ubiquitin ligase activity. ROC1 functions in vivo as an
CC essential regulator of CDK inhibitor Sic1 degradation by the SCF
CC (undefined) pathway. ROC proteins are useful for screening bioactive
CC agents that interfere with the binding of ROC proteins with cullin
CC proteins. Pharmaceutical formulations comprising ROC proteins are
CC useful for diagnostic and therapeutic purposes, preferably for
CC diagnosing and treating tumours.
XX
SQ Sequence 108 AA;

Query Match 100.0%; Score 616; DB 21; Length 108;
Best Local Similarity 100.0%; Pred. No. 1.5e-64;
Matches 108; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MAAAMDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60
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Db 1 MAAAMDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60

Qy 61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108
||||||||||||||||||||||||||||||||||||||||||||||||||
Db 61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108

RESULT 2
AAB08813
ID AAB08813 standard; Protein; 108 AA.
XX
AC AAB08813;
XX
DT 02-JAN-2001 (first entry)
XX
DE A human cullin-interacting RING-H2 finger protein (Rbx1).
XX
KW Cullin-interacting RING-H2 finger protein; Ring box protein; Rbx1;
KW tumour suppressor; carcinoma; Ring box associated carcinoma;
KW von Hippel-Lindau complex; ubiquitin conjugation; renal carcinoma;
KW cerebellar hemangioblastoma; hemangioma; retinal angiomata;
KW pheochromocytomas.
XX
OS Homo sapiens.
XX
PN WO200050445-A1.
XX
PD 31-AUG-2000.
XX
PF 25-FEB-2000; 2000WO-US04838.
XX
PR 26-FEB-1999; 99US-0121787.
XX
PA (OKLA-) OKLAHOMA MEDICAL RES FOUND.
XX
PI Conaway JA, Conaway RC, Kamura T;
XX
DR WPI; 2000-572067/53.
DR N-PSDB; AAA74978.
XX
PT Cullin interacting RING-H2 finger protein, a component of von
PT Hippel-Lindau tumour suppressor complex and Skp1-Cdc53p-F-box protein
PT (SCF) ubiquitin ligase, useful for diagnosing and treating Ring box
PT protein associated carcinomas -
XX
PS Claim 1; Page 34; 37pp; English.
XX
CC The present sequence represents a human cullin-interacting RING-H2 finger
CC protein (Ring box protein), designated Rbx1. The polypeptide is a tumour
CC suppressor. Rbx1 is useful for diagnosing a predisposition of a patient
CC to certain carcinomas. It is also useful for treating Ring box protein
CC associated carcinomas or augmenting metabolically deficient system in
CC animals. Rbx1 is also useful for evaluating the effectiveness of a
CC therapeutic treatment for Ring box associated carcinomas. Rbx1 can be
CC used to screen for agents which augment or inhibit the activity of
CC other cullin-containing ubiquitin ligase and of the VHL (von Hippel-
CC Lindau) complex controlling the conjugation of ubiquitin or ubiquitin-
CC like proteins to various sets of target proteins. Carcinomas which may
CC be treated include renal carcinomas, cerebellar hemangioblastomas and
CC hemangiomas, retinal angiomata and pheochromocytomas.
XX
SQ Sequence 108 AA;

Query Match 100.0%; Score 616; DB 21; Length 108;
Best Local Similarity 100.0%; Pred. No. 1.5e-64;
Matches 108; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MAAAMDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 1 MAAAMDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60

Qy 61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108
||||||||||||||||||||||||||||||||||||||||||||||||||
Db 61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108

RESULT 3
AAG03890
ID AAG03890 standard; Protein; 108 AA.
XX
AC AAG03890;
XX
DT 06-OCT-2000 (first entry)
XX
DE Human secreted protein, SEQ ID NO: 7971.
XX
KW Human; 5' EST; expressed sequence tag; secreted protein; cDNA isolation;
KW gene therapy; chromosome mapping.
XX
OS Homo sapiens.
XX
PN EP1033401-A2.
XX
PD 06-SEP-2000.
XX
PF 21-FEB-2000; 2000EP-0200610.
XX
PR 26-FEB-1999; 99US-0122487.
XX
PA (GEST) GENSET.
XX
PI Dumas Milne Edwards J, Duclert A, Giordano J;
XX
DR WPI; 2000-500381/45.
DR N-PSDB; AAC03896.
XX
PT New nucleic acid that is a 5' expressed sequence tag (5' EST) for
PT obtaining cDNAs and genomic DNAs that correspond to 5'ESTs and for
PT diagnostic, forensic, gene therapy and chromosome mapping procedures -
XX
PS Claim 13; SEQ ID 7971; 71pp + CD-ROM; English.
XX
CC The present sequence is a polypeptide encoded by one of a large number
CC of 5' ESTs derived from mRNAs encoding secreted proteins. The 5' ESTs
CC were prepared from total human RNAs or polyA+ RNAs derived from 30
CC different tissues. EST sequences usually correspond mainly to the 3'
CC untranslated region (UTR) of the mRNA because they are often obtained
CC from oligo-dT primed cDNA libraries. Such ESTs are not well suited for
CC isolating cDNA sequences derived from the 5' ends of mRNAs and even in
CC those cases where longer cDNA sequences have been obtained, the full 5'
CC UTR is rarely included. 5' ESTs are derived from mRNAs with intact 5'
CC ends and can therefore be used to obtain full length cDNAs and genomic

CC DNAs. 5' ESTs are also used in diagnostic, forensic, gene therapy and
CC chromosome mapping procedures. They are used to obtain upstream
CC regulatory sequences and to design expression and secretion vectors.
XX
SQ Sequence 108 AA;

Query Match 100.0%; Score 616; DB 21; Length 108;
Best Local Similarity 100.0%; Pred. No. 1.5e-64;
Matches 108; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MAAAMDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60
Db 1 MAAAMDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60

Qy 61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108
Db 61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108

RESULT 4
AAB47599
ID AAB47599 standard; Protein; 108 AA.
XX
AC AAB47599;
XX
DT 07-JAN-2002 (first entry)
XX
DE ROC1.
XX
KW Assay; ubiquitin ligase; tag1-ubiquitin; E1; E2;
KW ubiquitin activating enzyme; ubiquitin conjugating enzyme; E3;
KW ubiquitin ligase; ubiquitination modulator.
XX
OS Unidentified.
XX
PN WO200175145-A2.
XX
PD 11-OCT-2001.
XX
PF 03-APR-2001; 2001WO-US10906.
XX
PR 03-APR-2000; 2000US-0542497.
XX
PA (RIGE-) RIGEL PHARM INC.
XX
PI Issakani SD, Huang J, Sheung J, Pray TR;
XX
DR WPI; 2001-626445/72.
XX
PT Assaying ubiquitin ligase activity for identifying modulators of
PT ubiquitination, by combining ubiquitin, ubiquitin activating
PT conjugating enzyme, ubiquitin ligase and measuring amount of ubiquitin
PT bound to the ligase -
XX
PS Example 1; Fig 11; 98pp; English.
XX
CC The sequences given in AAB47596-602 are proteins which may be used
CC in the method of the invention for assaying ubiquitin ligase activity.
CC The method comprises combining under conditions that favour ubiquitin
CC ligase activity, tag1-ubiquitin, E1 (ubiquitin activating enzyme), E2
CC (ubiquitin conjugating enzyme) and E3 (ubiquitin ligase) and measuring
CC the amount of tag1-ubiquitin bound to the E3. The method is useful for
CC assaying ubiquitin ligase activity and ubiquitination enzyme activity
CC which is useful for identifying ubiquitination modulator. The method
CC comprises combining tag1-ubiquitin, the modulator, E1, E2 and tag2-E3
CC and measuring the amount of tag1-ubiquitin bound to tag2-E3 or combining
CC tag1-ubiquitin, modulator, E1 and tag3-E2 and measuring the amount of
CC tag1-ubiquitin bound to tag3-E2. Ubiquitin ligase activity is measured
CC directly, eliminating the need for target proteins and subsequent
CC analysis such as separating ligated from unligated material in an
CC SDS-PAGE procedure. This allows multi-well array analysis and high
CC throughput screening techniques for modulators of ubiquitination
CC activity. The method also allows the analysis of many different
CC combinations of E3 components and E2/E3 combinations without requiring
CC prior identification of specific target substrates. Ubiquitin is labeled,
CC directly or indirectly and this allows for easy and rapid detection and
CC measurement of ligated ubiquitin.
XX
SQ Sequence 108 AA;

Query Match 100.0%; Score 616; DB 22; Length 108;
Best Local Similarity 100.0%; Pred. No. 1.5e-64;
Matches 108; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MAAAMDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60
Db 1 MAAAMDVDTPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60

Qy 61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108
Db 61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108

RESULT 5
ABB68080
ID ABB68080 standard; Protein; 108 AA.
XX
AC ABB68080;
XX
DT 26-MAR-2002 (first entry)
XX
DE Drosophila melanogaster polypeptide SEQ ID NO 31032.
XX
KW Drosophila; developmental biology; cell signalling; insecticide;
KW pharmaceutical.
XX
OS Drosophila melanogaster.
XX
PN WO200171042-A2.
XX
PD 27-SEP-2001.
XX
PF 23-MAR-2001; 2001WO-US09231.
XX
PR 23-MAR-2000; 2000US-191637P.
PR 11-JUL-2000; 2000US-0614150.
XX
PA (PEKE) PE CORP NY.
XX
PI Venter JC, Adams M, Li PWD, Myers EW;
XX
DR WPI; 2001-656860/75.
DR N-PSDB; ABL12183.
XX
PT New isolated nucleic acid detection reagent for detecting 1000 or more
PT genes from Drosophila and for elucidating cell signalling and cell-cell
PT interactions -
XX
PS Disclosure; SEQ ID NO 31032; 21pp + Sequence Listing; English.
XX
CC The invention relates to an isolated nucleic acid detection reagent
CC capable of detecting 1000 or more genes from Drosophila. The invention is
CC useful in developmental biology and in elucidating cell signalling and
CC cell-cell interactions in higher eukaryotes for the development of
CC insecticides, therapeutics and pharmaceutical drugs. The invention
CC discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC sequences (ABL01840-ABL16175) and the encoded proteins
CC (ABB57737-ABB72072).
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 108 AA;

Query Match 86.7%; Score 534; DB 22; Length 108;
Best Local Similarity 87.2%; Pred. No. 6.3e-55;

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  Matches   95;  Conservative    4;  Mismatches    4;  Indels    6;  Gaps    2;

Qy       5 MDVD-----TPSGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQAN 59
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Db       1 MEVDEDGYEVPSSSSKG-DKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQAN 59

Qy      60 QASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108
           ||||||||||||||||||||||||||||||||||||||:||||||
Db      60 QASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWDFQKYGH 108


RESULT 6
AAG23004
ID   AAG23004 standard; Protein; 118 AA.
XX
AC   AAG23004;
XX
DT   17-OCT-2000  (first entry)
XX
DE   Arabidopsis thaliana protein fragment SEQ ID NO: 26148.
XX
KW   Protein identification; signal transduction pathway; metabolic pathway;
KW   hybridisation assay; genetic mapping; gene expression control; promoter;
KW   termination sequence.
XX
OS   Arabidopsis thaliana.
XX
PN   EP1033405-A2.
XX
PD   06-SEP-2000.
XX
PF   25-FEB-2000; 2000EP-0301439.
XX
PR   25-FEB-1999;   99US-0121825.
PR   05-MAR-1999;   99US-0123180.
PR   09-MAR-1999;   99US-0123548.
PR   23-MAR-1999;   99US-0125788.
PR   25-MAR-1999;   99US-0126264.
PR   29-MAR-1999;   99US-0126785.
PR   01-APR-1999;   99US-0127462.
PR   06-APR-1999;   99US-0128234.
PR   08-APR-1999;   99US-0128714.
PR   16-APR-1999;   99US-0129845.
PR   19-APR-1999;   99US-0130077.
PR   21-APR-1999;   99US-0130449.
PR   23-APR-1999;   99US-0130510.
PR   23-APR-1999;   99US-0130891.
PR   28-APR-1999;   99US-0131449.
PR   30-APR-1999;   99US-0132048.
PR   30-APR-1999;   99US-0132407.
PR   04-MAY-1999;   99US-0132484.
PR   05-MAY-1999;   99US-0132485.
PR   06-MAY-1999;   99US-0132486.
PR   06-MAY-1999;   99US-0132487.
PR   07-MAY-1999;   99US-0132863.
PR   11-MAY-1999;   99US-0134256.
PR   14-MAY-1999;   99US-0134218.
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PR   14-MAY-1999;   99US-0134370.
PR   18-MAY-1999;   99US-0134768.
PR   19-MAY-1999;   99US-0134941.
PR   20-MAY-1999;   99US-0135124.
PR   21-MAY-1999;   99US-0135353.
PR   24-MAY-1999;   99US-0135629.
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PR   27-MAY-1999;   99US-0136392.
PR   28-MAY-1999;   99US-0136782.
PR   01-JUN-1999;   99US-0137222.
PR   03-JUN-1999;   99US-0137528.
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PR   07-JUN-1999;   99US-0137724.
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PR   02-JUL-1999;   99US-0142055.
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PR   26-JUL-1999;   99US-0145276.
PR   27-JUL-1999;   99US-0145913.
PR   27-JUL-1999;   99US-0145918.
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PR   02-AUG-1999;   99US-0146388.
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PR 09-AUG-1999; 99US-0147935.
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PR 17-AUG-1999; 99US-0149175.
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PR 23-AUG-1999; 99US-0149930.
PR 25-AUG-1999; 99US-0150566.
PR 26-AUG-1999; 99US-0150884.
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PR 27-AUG-1999; 99US-0151066.
PR 27-AUG-1999; 99US-0151080.
PR 30-AUG-1999; 99US-0151303.
PR 31-AUG-1999; 99US-0151438.
PR 01-SEP-1999; 99US-0151930.
PR 07-SEP-1999; 99US-0152363.
PR 10-SEP-1999; 99US-0153070.
PR 13-SEP-1999; 99US-0153758.
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PR 04-OCT-1999; 99US-0157117.
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PR 26-OCT-1999; 99US-0161361.
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PR 28-OCT-1999; 99US-0161993.
PR 29-OCT-1999; 99US-0162142.

Query Match 83.5%; Score 514.5; DB 21; Length 118;
Best Local Similarity 78.6%; Pred. No. 1.4e-52;
Matches 92; Conservative 6; Mismatches 8; Indels 11; Gaps 2;

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Db       2 ATLDSDVTMIPAGEASSSVAASSSNKKAKRFEIKKWSAVALWAWDIVVDNCAICRNHIMD 61

Qy      52 LCIECQANQASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108
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Db      62 LCIECQANQASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNSEWEFQKYGH 118
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RESULT 7
AAG23005
ID AAG23005 standard; Protein; 109 AA.
XX
AC AAG23005;
XX
DT 17-OCT-2000 (first entry)
XX
DE Arabidopsis thaliana protein fragment SEQ ID NO: 26149.
XX
KW Protein identification; signal transduction pathway; metabolic pathway;
KW hybridisation assay; genetic mapping; gene expression control; promoter;
KW termination sequence.
XX
OS Arabidopsis thaliana.
XX
PN EP1033405-A2.
XX
PD 06-SEP-2000.
XX
PF 25-FEB-2000; 2000EP-0301439.
XX
PR 25-FEB-1999; 99US-0121825.
PR 05-MAR-1999; 99US-0123180.
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PR 24-SEP-1999; 99US-0155659.
PR 28-SEP-1999; 99US-0156458.
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PR 28-OCT-1999; 99US-0161920.
PR 28-OCT-1999; 99US-0161992.
PR 28-OCT-1999; 99US-0161993.
PR 29-OCT-1999; 99US-0162142.

Query Match 83.0%; Score 511; DB 21; Length 109;
Best Local Similarity 88.8%; Pred. No. 3.2e-52;
Matches 87; Conservative 5; Mismatches 6; Indels 0; Gaps 0;

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Qy     11 SGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQASATSEECTV 70
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Db     12 AASSSNKKAKRFEIKKWSAVALWAWDIVVDNCAICRNHIMDLCIECQANQASATSEECTV 71
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Qy      71 AWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 108
           |||||||||||||||||||||||||||| |||||||||
Db      72 AWGVCNHAFHFHCISRWLKTRQVCPLDNSEWEFQKYGH 109


RESULT 8
ABB66109
ID   ABB66109 standard; Protein; 122 AA.
XX
AC   ABB66109;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Drosophila melanogaster polypeptide SEQ ID NO 25119.
XX
KW   Drosophila; developmental biology; cell signalling; insecticide;
KW   pharmaceutical.
XX
OS   Drosophila melanogaster.
XX
PN   WO200171042-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US09231.
XX
PR   23-MAR-2000; 2000US-191637P.
PR   11-JUL-2000; 2000US-0614150.
XX
PA   (PEKE ) PE CORP NY.
XX
PI   Venter JC,  Adams M,  Li PWD,  Myers EW;
XX
DR   WPI; 2001-656860/75.
DR   N-PSDB; ABL10212.
XX
PT   New isolated nucleic acid detection reagent for detecting 1000 or more
PT   genes from Drosophila and for elucidating cell signalling and cell-cell
PT   interactions -
XX
PS   Disclosure; SEQ ID NO 25119; 21pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated nucleic acid detection reagent
CC   capable of detecting 1000 or more genes from Drosophila. The invention is
CC   useful in developmental biology and in elucidating cell signalling and
CC   cell-cell interactions in higher eukaryotes for the development of
CC   insecticides, therapeutics and pharmaceutical drugs. The invention
CC   discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC   sequences (ABL01840-ABL16175) and the encoded proteins
CC   (ABB57737-ABB72072).
CC   The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   122 AA;

  Query Match             65.0%;  Score 400.5;  DB 22;  Length 122;
  Best Local Similarity   65.4%;  Pred. No. 3.5e-39;
  Matches   70;  Conservative   13;  Mismatches   19;  Indels    5;  Gaps    2;

Qy       5 MDVDTPSGTNSG----AGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQ 60
           || :    : ||    |  :|| |||| | |:| ||: ||||||||||||:|||||||:
Db      16 MDFNDEEPSCSGGAVQARTERFVVKKWVAHAMWGWDVAVDNCAICRNHIMNLCIECQAD- 74

Qy      61 ASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYG 107
           :|  :|||||||| ||||||:|||:|||||| ||||||:|| :|||
Db      75 PNANQDECTVAWGECNHAFHYHCIARWLKTRLVCPLDNKEWVYQKYG 121


RESULT 9
AAB08814
ID   AAB08814 standard; Protein; 121 AA.
XX
AC   AAB08814;
XX
DT   02-JAN-2001  (first entry)
XX
DE   A yeast cullin-interacting RING-H2 finger protein (Rbx1).
XX
KW   Cullin-interacting RING-H2 finger protein; Ring box protein; Rbx1;
KW   tumour suppressor; carcinoma; Ring box associated carcinoma;
KW   von Hippel-Lindau complex; ubiquitin conjugation; renal carcinoma;
KW   cerebellar hemangioblastoma; hemangioma; retinal angiomata;
KW   pheochromocytomas.
XX
OS   Saccharomyces cerevisiae.
XX
PN   WO200050445-A1.
XX
PD   31-AUG-2000.
XX
PF   25-FEB-2000; 2000WO-US04838.
XX
PR   26-FEB-1999;   99US-0121787.
XX
PA   (OKLA-) OKLAHOMA MEDICAL RES FOUND.
XX
PI   Conaway JA,  Conaway RC,  Kamura T;
XX
DR   WPI; 2000-572067/53.
DR   N-PSDB; AAA74979.
XX
PT   Cullin interacting RING-H2 finger protein, a component of von
PT   Hippel-Lindau tumour suppressor complex and Skp1-Cdc53p-F-box protein
PT   (SCF) ubiquitin ligase, useful for diagnosing and treating Ring box
PT   protein associated carcinomas -
XX
PS   Disclosure; Page 34-35; 37pp; English.
XX
CC   The present sequence represents a yeast cullin-interacting RING-H2 finger
CC   protein (Ring box protein), designated Rbx1. The human Rbx1 polypeptide
CC   is a tumour suppressor. Human Rbx1 is useful for diagnosing a
CC   predisposition of a patient to certain carcinomas. It is also useful
CC   for treating Ring box protein associated carcinomas or augmenting
CC   metabolically deficient system in animals. Human Rbx1 is also useful for
CC   evaluating the effectiveness of a therapeutic treatment for Ring box
CC   associated carcinomas. Human Rbx1 can be used to screen for agents which
CC   augment or inhibit the activity of other cullin-containing ubiquitin
CC   ligase and of the VHL (von Hippel-Lindau) complex controlling the
CC   conjugation of ubiquitin or ubiquitin-like proteins to various sets of
CC   target proteins. Carcinomas which may be treated include renal
CC   carcinomas, cerebellar hemangioblastomas and hemangiomas, retinal
CC   angiomata and pheochromocytomas.
XX
SQ   Sequence   121 AA;

  Query Match             62.5%;  Score 385;  DB 21;  Length 121;
  Best Local Similarity   56.6%;  Pred. No. 2.3e-37;
  Matches   64;  Conservative   10;  Mismatches   29;  Indels   10;  Gaps    1;

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Db       8 MDVDEDESQNIAQSSNQSAPVETKKKRFEIKKWTAVAFWSWDIAVDNCAICRNHIMEPCI 67

Qy      55 ECQANQASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYG 107
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Db      68 ECQPKAMTDTDNECVAAWGVCNHAFHLHCINKWIKTRDACPLDNQPWQLARCG 120


RESULT 10
AAB41007
ID   AAB41007 standard; Protein; 57 AA.
XX
AC   AAB41007;
XX
DT   08-FEB-2001  (first entry)
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XX
DE   Human ORFX ORF771 polypeptide sequence SEQ ID NO:1542.
XX
KW   Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW   vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
KW   anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW   immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW   hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW   antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW   antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
KW   neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW   cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW   cholesterol ester storage; systemic lupus erythematosus; infection;
KW   severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW   allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW   bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW   thrombosis; contraceptive.
XX
OS   Homo sapiens.
XX
PN   WO200058473-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08621.
XX
PR   31-MAR-1999;   99US-0127607.
PR   02-APR-1999;   99US-0127636.
PR   05-APR-1999;   99US-0127728.
PR   30-MAR-2000; 2000US-0540763.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Shimkets RA,  Leach M;
XX
DR   WPI; 2000-602362/57.
DR   N-PSDB; AAC75216.
XX
PT   Novel nucleic acids and peptides derived from open reading frame X,
PT   useful for treating e.g. cancers, proliferative disorders,
PT   neurodegenerative disorders and cardiovascular disease
XX
PS   Claim 11; Page 1266; 5507pp; English.
XX
CC   AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC   which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC   sequences have activities such as: cytostatic; hepatotropic; vulnerary;
CC   antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
CC   osteopathic; anticonvulsant; antiarthritic; immunosuppressant;
CC   immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
CC   antidiabetic; hypotensive; dermatological; immunosuppressive;
CC   antiinflammatory; antibacterial; antiviral; antifungal; antirheumatic;
CC   antithyroid; and antianaemic. The sequences can be used for determining
CC   the presence of or predisposition to, or preventing or treating
CC   pathological conditions associated with an ORFX-associated disorder. The
CC   nucleic acids can be used to express ORFX proteins in gene therapy
CC   vectors. The proteins and nucleic acids may be used to treat cancers,
CC   proliferative disorders, neurodegenerative disorders, osteoarthritis,
CC   graft vs host disease, cardiovascular disease, diabetes mellitus,
CC   hypertension, hypothyroidism, cholesterol ester storage, systemic lupus
CC   erythematosus, severe combined immunodeficiency (SCID), AIDS, viral,
CC   bacterial or fungal infection, malaria, autoimmune disorders, asthma,
CC   allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,
CC   nocturnal haemoglobinuria, antiinflammatory disease; to enhance
CC   coagulation; to inhibit thrombosis; and as a contraceptive.
XX
SQ   Sequence   57 AA;

  Query Match             52.4%;  Score 323;  DB 21;  Length 57;
  Best Local Similarity   100.0%;  Pred. No. 1.8e-30;
  Matches   55;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db       3 IECQANQASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH 57


RESULT 11
AAY06492
ID   AAY06492 standard; Protein; 113 AA.
XX
AC   AAY06492;
XX
DT   27-SEP-1999  (first entry)
XX
DE   Human sensitive to apoptosis (SAG) protein.
XX
KW   SAG protein; sensitive to apoptosis; human; cancer; tumour;
KW   neurodegenerative disease; muscular dystrophy; wound healing;
KW   vulnerary; therapy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Binding-site    47..51
FT                   /note= "haem binding site"
FT   Binding-site    50..54
FT                   /note= "haem binding protein"
FT   Region          54..63
FT                   /note= "aminoacyl-tRNA class II motif"
FT   Region          85..107
FT                   /note= "Kazal serine protease inhibitor motif"
FT   Domain          65..107
FT                   /note= "Ly-6/U-par domain"
FT   Binding-site    16..27
FT                   /note= "prokaryotic membrane lipoprotein lipid
FT                   attachment site"
FT   Region          49..66
FT                   /note= "somatotropin, prolactin and related hormone
FT                   motif"
XX
PN   WO9932514-A2.
XX
PD   01-JUL-1999.
XX
PF   15-DEC-1998;   98WO-US26705.
XX
PR   11-SEP-1998;   98US-0099840.
PR   19-DEC-1997;   97US-0068179.
XX
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Sun Y;
XX
DR   WPI; 1999-430152/36.
DR   N-PSDB; AAX87314.
XX
PT   SAG: Sensitive to Apoptosis Gene and related proteins, useful for
PT   promoting cell growth and protecting cells against apoptosis
XX
PS   Claim 20; Page 51-52; 84pp; English.
XX
CC   This sequence represents a novel human redox-sensitive, haem-binding
CC   protein with a zinc RING finger domain that is encoded by the SAG
CC   gene (see AAX87314).  SAG promotes cell growth, protects cells from
CC   apoptosis, scavenges oxygen radicals and can be used for the
CC   reversion of a tumour phenotype.  SAG is highly conserved among
CC   species.  Disruption in yeast was shown to be lethal.  SAG deletion
CC   mutants (see AAX87315-16) have been identified in human cancer lines,
CC   suggesting a role in carcinogenesis.  SAG genes, and mutant SAG
CC   genes, can be used to protect cells from apoptosis induced by redox
CC   reagents.  Antisense SAG genes can be used to inhibit the growth of
CC   tumour cells.  The SAG genes can also be used for the recombinant
CC   production of the SAG proteins.  The SAG proteins can be used to
CC   scavenge oxygen radicals in organisms and to promote wound healing.
CC   They are also ideal molecular targets in the development of drugs
```

```
CC   against neurodegenerative disorders, cancers and muscle dystrophy.
XX
SQ   Sequence   113 AA;

  Query Match             47.4%;  Score 292;  DB 20;  Length 113;
  Best Local Similarity   50.5%;  Pred. No. 1.8e-26;
  Matches   49;  Conservative   14;  Mismatches   30;  Indels    4;  Gaps    2;

Qy      11 SGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQASATSEECTV 70
           ||: || | | | :|||||||:|:||:  | |||||  :|| |: |||       |:| |
Db      20 SGSKSG-GDKMFSLKKWNAVAMWSWDVECDTCAICRVQVMDACLRCQAEN---KQEDCVV 75

Qy      71 AWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYG 107
              || |||:||  |:| |:|    |||  ::|  |: |
Db      76 VWGECNHSFHNCCMSLWVKQNNRCPLCQQDWVVQRIG 112


RESULT 12
AAB43295
ID   AAB43295 standard; Protein; 113 AA.
XX
AC   AAB43295;
XX
DT   08-FEB-2001  (first entry)
XX
DE   Human ORFX ORF3059 polypeptide sequence SEQ ID NO:6118.
XX
KW   Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW   vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
KW   anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW   immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW   hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW   antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW   antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
KW   neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW   cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW   cholesterol ester storage; systemic lupus erythematosus; infection;
KW   severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW   allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW   bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW   thrombosis; contraceptive.
XX
OS   Homo sapiens.
XX
PN   WO200058473-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08621.
XX
PR   31-MAR-1999;   99US-0127607.
PR   02-APR-1999;   99US-0127636.
PR   05-APR-1999;   99US-0127728.
PR   30-MAR-2000; 2000US-0540763.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Shimkets RA,  Leach M;
XX
DR   WPI; 2000-602362/57.
DR   N-PSDB; AAC77504.
XX
PT   Novel nucleic acids and peptides derived from open reading frame X,
PT   useful for treating e.g. cancers, proliferative disorders,
PT   neurodegenerative disorders and cardiovascular disease -
XX
PS   Claim 11; Page 5300-5301; 5507pp; English.
XX
CC   AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC   which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC   sequences have activities such as: cytostatic; hepatotropic; vulnerary;
CC   antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
CC   osteopathic; anticonvulsant; antiarthritic; immunosuppressant;
CC   immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
CC   antidiabetic; hypotensive; dermatological; immunosuppressive;
CC   antiinflammatory; antibacterial; antiviral; antifungal; antirheumatic;
CC   antithyroid; and antianaemic. The sequences can be used for determining
CC   the presence of or predisposition to, or preventing or treating
CC   pathological conditions associated with an ORFX-associated disorder. The
CC   nucleic acids can be used to express ORFX proteins in gene therapy
CC   vectors. The proteins and nucleic acids may be used to treat cancers,
CC   proliferative disorders, neurodegenerative disorders, osteoarthritis,
CC   graft vs host disease, cardiovascular disease, diabetes mellitus,
CC   hypertension, hypothyroidism, cholesterol ester storage, systemic lupus
CC   erythematosus, severe combined immunodeficiency (SCID), AIDS, viral,
CC   bacterial or fungal infection, malaria, autoimmune disorders, asthma,
CC   allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,
CC   nocturnal haemoglobinuria, antiinflammatory disease; to enhance
CC   coagulation; to inhibit thrombosis; and as a contraceptive.
XX
SQ   Sequence   113 AA;

  Query Match             47.4%;  Score 292;  DB 21;  Length 113;
  Best Local Similarity   50.5%;  Pred. No. 1.8e-26;
  Matches   49;  Conservative   14;  Mismatches   30;  Indels    4;  Gaps    2;

Qy      11 SGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQASATSEECTV 70
           ||: || | | | :|||||||:|:||:  | |||||  :|| |: |||       |:| |
Db      20 SGSKSG-GDKMFSLKKWNAVAMWSWDVECDTCAICRVQVMDACLRCQAEN---KQEDCVV 75

Qy      71 AWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYG 107
              || |||:||  |:| |:|    |||  ::|  |: |
Db      76 VWGECNHSFHNCCMSLWVKQNNRCPLCQQDWVVQRIG 112


RESULT 13
AAU15873
ID   AAU15873 standard; Protein; 118 AA.
XX
AC   AAU15873;
XX
DT   07-NOV-2001  (first entry)
XX
DE   Human novel secreted protein, Seq ID 826.
XX
KW   Human; immunosuppressive; antiarthritic; antirheumatic;
KW   cytostatic; cardiant; vasotropic; cerebroprotective; nootropic;
KW   neuroprotective; antibacterial; virucide; fungicide; opthalmalogical;
KW   vulnerary; secreted protein; rheumatoid arthritis;
KW   hyperproliferative disorder; cardiovascular disorder; cardiac arrest;
KW   cerebrovascular disorder; cerebral ischaemia; angiogenesis;
KW   nervous system disorder; Alzheimer's disease; infection; ocular disorder;
KW   corneal infection; wound healing; epithelial cell proliferation;
KW   skin ageing; food additive; preservative; antiproliferative.
XX
OS   Homo sapiens.
XX
PN   WO200155322-A2.
XX
PD   02-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US01341.
XX
PR   31-JAN-2000; 2000US-0179065.
PR   04-FEB-2000; 2000US-0180628.
PR   24-FEB-2000; 2000US-0184664.
PR   02-MAR-2000; 2000US-0186350.
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PR   19-MAY-2000; 2000US-0205515.
PR   07-JUN-2000; 2000US-0209467.
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PR 11-JUL-2000; 2000US-0217487.
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PR 20-OCT-2000; 2000US-0241787.
PR 20-OCT-2000; 2000US-0241808.
PR 20-OCT-2000; 2000US-0241809.
PR 20-OCT-2000; 2000US-0241826.
PR 01-NOV-2000; 2000US-0244617.
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PR 08-NOV-2000; 2000US-0246475.
PR 08-NOV-2000; 2000US-0246476.
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PR 01-DEC-2000; 2000US-0250391.
PR 05-DEC-2000; 2000US-0251030.
PR 05-DEC-2000; 2000US-0251988.
PR 05-DEC-2000; 2000US-0256719.
PR 06-DEC-2000; 2000US-0251479.
PR 08-DEC-2000; 2000US-0251856.
PR 08-DEC-2000; 2000US-0251868.
PR 08-DEC-2000; 2000US-0251869.
PR 08-DEC-2000; 2000US-0251989.
PR 08-DEC-2000; 2000US-0251990.
PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-488783/53.
DR N-PSDB; AAS25860.
XX
PT New nucleic acid molecules encoding 461 human secreted proteins for
PT diagnosing, preventing, treating or ameliorating medical conditions and
PT used as food additives or preservatives -
XX
PS Claim 11; SEQ ID No 826; 980pp; English.
XX
CC The invention relates to isolated nucleic acid molecules and their
CC encoded secreted proteins. The nucleic acids and proteins are used to
CC prevent, treat or ameliorate a medical condition in e.g. humans, mice,
CC rabbits, goats, horses, cats, dogs, chickens or sheep. They
CC are also used in diagnosing a pathological condition or susceptibility
CC to a pathological condition. Antibodies to the proteins can also
CC be used in alleviating symptoms associated with the disorders and in
CC diagnostic immunoassays e.g. radioimmunoassays or enzyme linked
CC immunosorbant assays (ELISA). Disorders which are diagnosed or treated

```
CC   include autoimmune diseases e.g. rheumatoid arthritis,
CC   hyperproliferative disorders e.g. neoplasms of the breast or liver,
CC   cardiovascular disorders e.g. cardiac arrest, cerebrovascular disorders
CC   e.g. cerebral ischaemia, angiogenesis, nervous system disorders e.g.
CC   Alzheimer's disease, infections caused by bacteria, viruses and fungi
CC   and ocular disorders e.g. corneal infection, and many other
CC   disorders listed in the specification. The polypeptides can also
CC   be used to aid wound healing and epithelial cell proliferation, to
CC   prevent skin aging due to sunburn, to maintain organs before
CC   transplantation, for supporting cell culture of primary tissues, to
CC   regenerate tissues and in chemotaxis. The polypeptides can also be used
CC   as a food additive or preservative to increase or decrease storage
CC   capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC   minerals, cofactors and other nutritional components. The present
CC   sequence represents a novel secreted protein of the invention.

  Query Match             47.4%;  Score 292;  DB 22;  Length 118;
  Best Local Similarity   50.5%;  Pred. No. 1.9e-26;
  Matches   49;  Conservative   14;  Mismatches   30;  Indels    4;  Gaps    2;

Qy      11 SGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQASATSEECTV 70
           ||: || | | | :|||||||:|:||:  | |||||  :|| |: |||       |:| |
Db      25 SGSKSG-GDKMFSLKKWNAVAMWSWDVECDTCAICRVQVMDACLRCQAEN---KQEDCVV 80

Qy      71 AWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYG 107
           || |||:||  |:| |:|    |||  ::|  |: |
Db      81 VWGECNHSFHNCCMSLWVKQNNRCPLCQQDWVVQRIG 117


RESULT 14
AAU16332
ID   AAU16332 standard; Protein; 131 AA.
XX
AC   AAU16332;
XX
DT   07-NOV-2001  (first entry)
XX
DE   Human novel secreted protein, Seq ID 1285.
XX
KW   Human; immunosuppressive; antiarthritic; antirheumatic;
KW   cytostatic; cardiant; vasotropic; cerebroprotective; nootropic;
KW   neuroprotective; antibacterial; virucide; fungicide; opthalmalogical;
KW   vulnerary; secreted protein; rheumatoid arthritis;
KW   hyperproliferative disorder; cardiovascular disorder; cardiac arrest;
KW   cerebrovascular disorder; cerebral ischaemia; angiogenesis;
KW   nervous system disorder; Alzheimer's disease; infection; ocular disorder;
KW   corneal infection; wound healing; epithelial cell proliferation;
KW   skin ageing; food additive; preservative; antiproliferative.
XX
OS   Homo sapiens.
XX
PN   WO200155322-A2.
XX
PD   02-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US01341.
XX
PR   31-JAN-2000; 2000US-0179065.
PR   04-FEB-2000; 2000US-0180628.
PR   24-FEB-2000; 2000US-0184664.
PR   02-MAR-2000; 2000US-0186350.
PR   16-MAR-2000; 2000US-0189874.
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PR   14-SEP-2000; 2000US-0232397.
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PR   13-OCT-2000; 2000US-0239935.
PR   13-OCT-2000; 2000US-0239937.
PR   20-OCT-2000; 2000US-0240960.
PR   20-OCT-2000; 2000US-0241221.
PR   20-OCT-2000; 2000US-0241785.
PR   20-OCT-2000; 2000US-0241786.
PR   20-OCT-2000; 2000US-0241787.
PR   20-OCT-2000; 2000US-0241808.
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PR   01-NOV-2000; 2000US-0244617.
PR   08-NOV-2000; 2000US-0246474.
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PR 08-NOV-2000; 2000US-0246475.
PR 08-NOV-2000; 2000US-0246476.
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PR 17-NOV-2000; 2000US-0249214.
PR 17-NOV-2000; 2000US-0249215.
PR 17-NOV-2000; 2000US-0249216.
PR 17-NOV-2000; 2000US-0249217.
PR 17-NOV-2000; 2000US-0249218.
PR 17-NOV-2000; 2000US-0249244.
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PR 17-NOV-2000; 2000US-0249264.
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PR 01-DEC-2000; 2000US-0250160.
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PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-488783/53.
DR N-PSDB; AAS26319.
XX
PT New nucleic acid molecules encoding 461 human secreted proteins for
PT diagnosing, preventing, treating or ameliorating medical conditions and
PT used as food additives or preservatives -
XX
PS Claim 11; SEQ ID No 1285; 980pp; English.
XX
CC The invention relates to isolated nucleic acid molecules and their
CC encoded secreted proteins. The nucleic acids and proteins are used to
CC prevent, treat or ameliorate a medical condition in e.g. humans, mice,
CC rabbits, goats, horses, cats, dogs, chickens or sheep. They
CC are also used in diagnosing a pathological condition or susceptibility
CC to a pathological condition. Antibodies to the proteins can also
CC be used in alleviating symptoms associated with the disorders and in
CC diagnostic immunoassays e.g. radioimmunoassays or enzyme linked
CC immunosorbant assays (ELISA). Disorders which are diagnosed or treated
CC include autoimmune diseases e.g. rheumatoid arthritis,
CC hyperproliferative disorders e.g. neoplasms of the breast or liver,
CC cardiovascular disorders e.g. cardiac arrest, cerebrovascular disorders
CC e.g. cerebral ischaemia, angiogenesis, nervous system disorders e.g.
CC Alzheimer's disease, infections caused by bacteria, viruses and fungi
CC and ocular disorders e.g. corneal infection, and many other
CC disorders listed in the specification. The polypeptides can also
CC be used to aid wound healing and epithelial cell proliferation, to
CC prevent skin aging due to sunburn, to maintain organs before
CC transplantation, for supporting cell culture of primary tissues, to
CC regenerate tissues and in chemotaxis. The polypeptides can also be used
CC as a food additive or preservative to increase or decrease storage
CC capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC minerals, cofactors and other nutritional components. The present
CC sequence represents a novel secreted protein of the invention.

Query Match 47.4%; Score 292; DB 22; Length 131;
Best Local Similarity 50.5%; Pred. No. 2.1e-26;
Matches 49; Conservative 14; Mismatches 30; Indels 4; Gaps 2;

```
Qy      11 SGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQASATSEECTV 70
           ||: || | | | :|||||||:|:||:  | |||||  :|| |: |||       |:| |
Db      38 SGSKSG-GDKMFSLKKWNAVAMWSWDVECDTCAICRVQVMDACLRCQAEN---KQEDCVV 93

Qy      71 AWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYG 107
              || |||:||  |:| |:|    |||  ::|  |: |
Db      94 VWGECNHSFHNCCMSLWVKQNNRCPLCQQDWVVQRIG 130
```

RESULT 15
AAY06509
ID AAY06509 standard; Protein; 113 AA.
XX
AC AAY06509;
XX
DT 27-SEP-1999 (first entry)
XX
DE Human sensitive to apoptosis (SAG) protein mutant MM15.
XX
KW SAG gene; sensitive to apoptosis; human; cancer; tumour;
KW neurodegenerative disease; muscular dystrophy; wound healing;
KW vulnerary; therapy; mutant.
XX
OS Homo sapiens.
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Misc-difference 47
FT /note= "Cys in native SAG"
XX
PN WO9932514-A2.
XX
PD 01-JUL-1999.
XX
PF 15-DEC-1998; 98WO-US26705.
XX
PR 11-SEP-1998; 98US-0099840.
PR 19-DEC-1997; 97US-0068179.
XX
PA (WARN) WARNER LAMBERT CO.
XX
PI Sun Y;
XX
DR WPI; 1999-430152/36.
DR N-PSDB; AAX87331.
XX
PT SAG: Sensitive to Apoptosis Gene and related proteins, useful for
PT promoting cell growth and protecting cells against apoptosis
XX
PS Claim 22; Page 83-84; 84pp; English.
XX
CC This sequence represents human sensitive to apoptosis (SAG) mutant
CC protein MM15, in which the Cys residue at position 47 of the native
CC protein (see AAY06492) is replaced by a Ser residue owing to a
CC mutation of codon 47 from TGC to AGC of SAG cDNA (see AAX87331).
CC This residue is in a GADPH binding site of SAG. Single and

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CC   double SAG mutants (see AAX87317-31) were made in order to determine
CC   the role of each cysteine residue of SAG in haem binding and SAG
CC   oligomerization.  These properties were unaffected by the MM15
CC   mutation.  SAG is a novel zinc finger protein that promotes
CC   cell growth, protects cells from apoptosis, scavenges oxygen
CC   radicals and can be used for the reversion of a tumour phenotype.
CC   SAG genes, and mutant SAG genes, can be used to protect cells from
CC   apoptosis induced by redox reagents.  They can also be used for the
CC   recombinant production of SAG proteins, which are molecular targets
CC   in the development of drugs against neurodegenerative disorders,
CC   cancers and muscle dystrophy, and promoting wound healing.
XX
SQ   Sequence   113 AA;

  Query Match             47.2%;  Score 291;  DB 20;  Length 113;
  Best Local Similarity   50.5%;  Pred. No. 2.3e-26;
  Matches   49;  Conservative   14;  Mismatches   30;  Indels    4;  Gaps    2;

Qy      11 SGTNSGAGKKRFEVKKWNAVALWAWDIVVDNCAICRNHIMDLCIECQANQASATSEECTV 70
           ||: || | | | :|||||||:|:||:  | ||||| :|| |: ||| |:| |
Db      20 SGSKSG-GDKMFSLKKWNAVAMWSWDVESDTCAICRVQVMDACLRCQAEN---KQEDCVV 75

Qy      71 AWGVCNHAFHFHCISRWLKTRQVCPLDNREWEFQKYG 107
              || |||:||  |:| |:|    |||  ::|  |: |
Db      76 VWGECNHSFHNCCMSLWVKQNNRCPLCQQDWVVQRIG 112


Search completed: May 11, 2003, 02:09:26
Job time : 64 secs
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